

Light Sheet #4

40 lux at 4.0 m

17.7 lux at 6.0 m

2960 lux at 0.5 m

$P = (40)4\pi(4)^2 = 8042.5 \text{ lm}$

$P = E 4\pi r^2$

$E = \frac{P}{4\pi r^2}$

$\frac{1}{15^2} = 0.444$

$40 \text{ Lux} \times \frac{1}{15^2} = 17.71 \text{ Lux}$

$E = \frac{P}{4\pi r^2}$

$= \frac{8042.5}{4\pi(6)^2}$

$= 17.7$

b)  $\frac{1}{8} = 0.125$

$40 \text{ Lux} \times \frac{1}{0.125^2} = 64 \text{ Lux}$

Jan 8-4:01 PM